

Health-Related Fitness Results from FitnessGram Tests

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Introduction and Purpose:

Everyone needs regular exercise to keep physically fit and enjoy good health. Important factors to consider in exercise programs are age, weight, gender, and physical condition. **The purpose of this project was to establish standards for a Healthy Fitness Zone by using FitnessGram tests to evaluate the physical health of school age children from third through fifth grade.**

This information can be used at school board meetings to inform the members about whether or not elementary students are achieving the physical health standards. If the students are failing to meet these standards, the members can discuss possible ways to correct the system so that the school and its students are more successful.

Methodology:

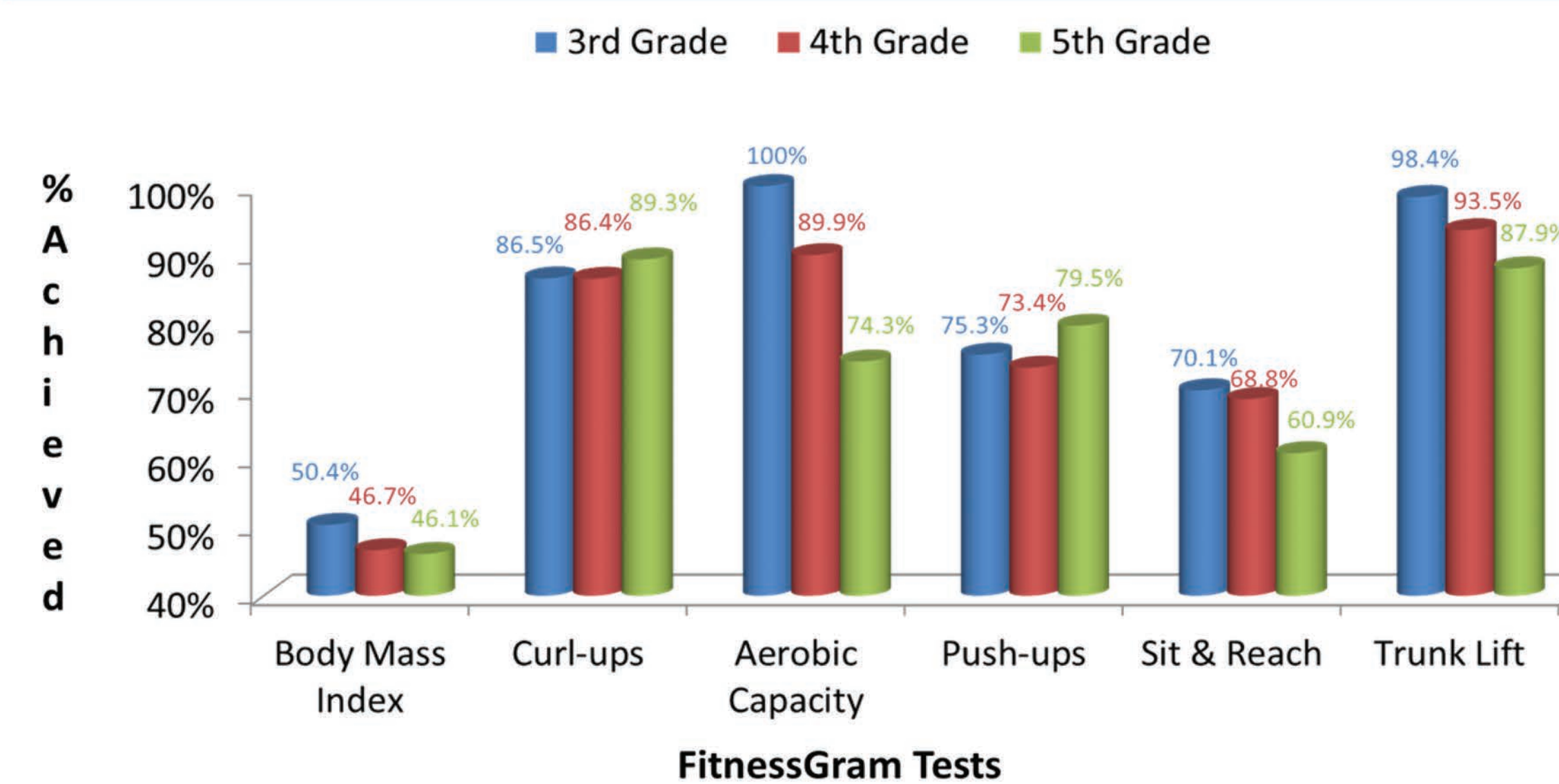
Stephen F. Austin University Kinesiology majors collaborated with physical educators and retrieved FitnessGram scores from all six different elementary schools in Nacogdoches, Texas. These schools included: Brooks-Quinn Jones, Carpenter, Fredonia, Nettie Marshall, Thomas J Rusk, and Raguet. Four core areas were monitored: Body Composition, Aerobic Capacity, Muscular Strength/Endurance, and Flexibility. Body Composition was measured using the Body Mass Index, which takes into account a person's height and weight. Aerobic Capacity was measured using the 20 meter Pacer or the One-mile run. Muscular Strength/Endurance was measured by doing Push-ups and Curl-ups. Flexibility was measured by performing Trunk Lifts and Sit and Reach exercises.

Results:

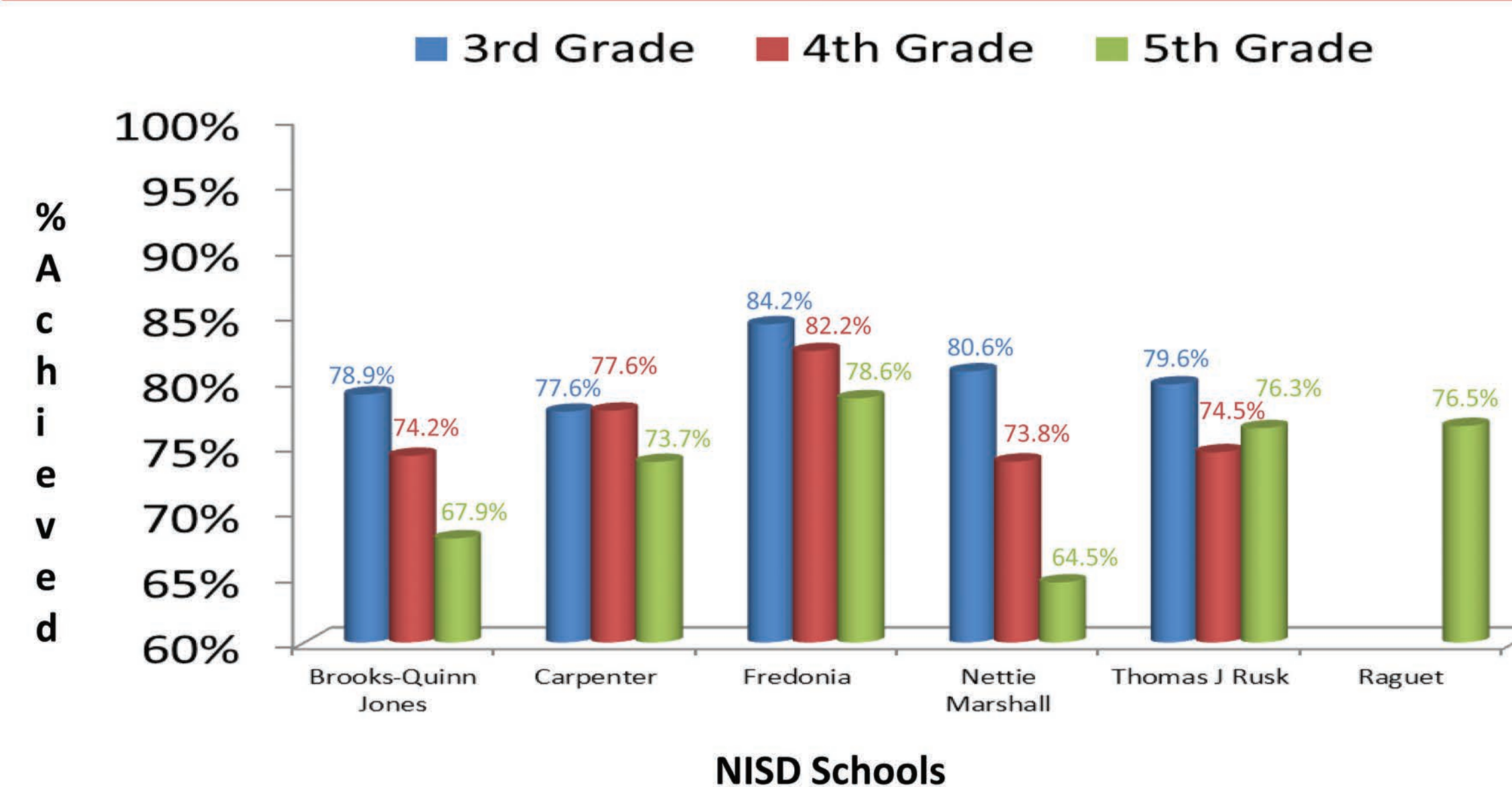
Standards for Healthy Fitness Zone

Components	3 rd Grade	4 th Grade	5 th Grade
Body Mass Index	Girls: 16.2-22 Boys: 15.1-20	Girls: 13.5-23 Boys: 13.7-20	Girls: 13.7-23.5 Boys: 14.0-21
20 meter PACER (number of laps)	Lap count standards not recommended.	Lap count standards not recommended.	Girls: 7-41 laps Boys: 23-61 laps
One-mile run	Completion of distance. Time standard not recommended.	Completion of distance. Time standard not recommended.	Girls: 9:30-12:30 Boys: 9-11:30
Curl-ups (number completed)	Girls: 6-20 Boys: 6-20	Girls: 9-22 Boys: 9-24	Girls: 12-26 Boys: 12-24
Push-ups (number completed)	Girls: 5-13 Boys: 5-13	Girls: 6-15 Boys: 6-15	Girls: 7-15 Boys: 7-20
Sit and Reach (inches) <i>Must pass with both legs</i>	Girls: 9 in Boys: 8 in	Girls: 9 in Boys: 8 in	Girls: 9 in Boys: 8 in
Trunk Lift (inches)	Girls: 6-12 in Boys: 6-12 in	Girls: 6-12 in Boys: 6-12 in	Girls: 9-12 in Boys: 9-12 in

Percentage of Students That Successfully Reached the Healthy Fitness Zone for NISD



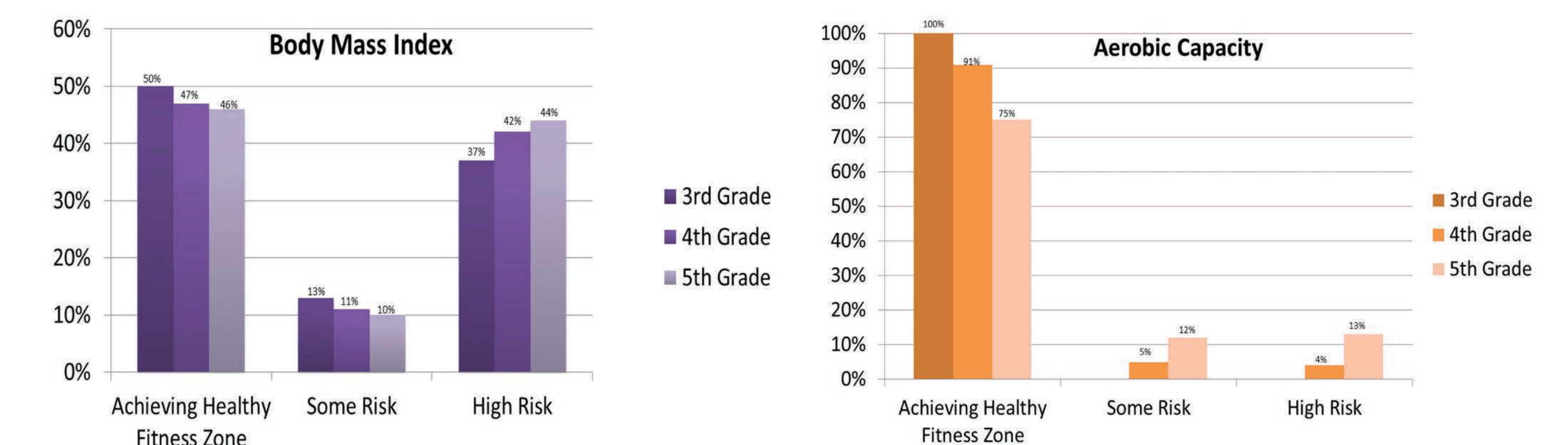
Percentage of Students That Successfully Reached the Healthy Fitness Zone for the Six Elementary Campuses



Results (continued):

Analysis of data indicated that students' scores did not meet the standard of the Healthy Fitness Zone in all areas. Testing areas which showed the greatest number of students not achieving the standards include the Body Mass Index, Push-ups, and Sit and Reach. There is also a concern about the decrease in the Aerobic Capacity and Trunk Lift tests as the students advance in grade level.

Body Mass Index and Aerobic Capacity are the only tests that contain three different zones of classification: Achieving Healthy Fitness Zone, Some Risk and High Risk. These two tests are considered the most important because they can influence the other areas being tested in the FitnessGram.



Discussion and Future Direction:

To improve the scores of the students, the Physical Education teacher needs to incorporate other activities that are similar to the tests in the FitnessGram in order to motivate the students to increase their fitness levels. If they can make exercise fun and interesting, they will be able to get students to participate more and try harder. The more active students become, the more physically fit they become.

For example, if a student needs to increase their Aerobic Capacity, instead of requiring them to run a mile or perform the PACER, they could participate in any game or activity that demands high levels of cardiovascular fitness.